

What is claimed is:

1. An envelope-filling station for mail-processing systems, the envelope-filling station comprising;

a feeding device for horizontally feeding enclosures or sets of enclosures along a conveying path to a push-in arrangement, the push-in direction of which is in the conveying direction of the conveying path;

an envelope-separating arrangement for separating envelopes from an envelope stack and for producing a sequence of separated envelopes;

an envelope-conveying device which runs parallel to the conveying path, alongside the latter, and is intended for receiving the sequence of separated envelopes and for transferring the same to an intermediate envelope-conveying device wherein the intermediate envelope-conveying device transports the envelopes, once they have been received from the envelope-conveying device, essentially parallel to the plane of the conveying path upstream of the push-in arrangement; and

an aligning means by which an envelope which is to be filled in each case is positioned precisely upstream of the push-in arrangement wherein, at least in an end section which is adjacent to the intermediate envelope-conveying device, the envelope-conveying device is designed such that, with driving frictional action of the envelope-conveying device in its conveying direction, the envelope can be driven by the intermediate envelope-conveying device to produce a movement with a horizontal component transverse to the conveying direction of the envelope-conveying device;

wherein, the intermediate envelope-conveying device has a conveying direction running at an angle in the range of from 15° to 75° to the conveying direction of the envelope-conveying device and, in a region which is adjacent to the envelope-conveying device, acts on the leading border of the envelope such that, when the intermediate envelope-conveying device acts on it, this envelope can be moved without a movement component transverse to the conveying direction of the intermediate envelope-conveying device, and, in a section which is adjacent to the push-in arrangement, the intermediate envelope-conveying device is designed such that a conveyed envelope can be

displaced in its plane relative to the intermediate envelope-conveying device, frictional forces being overcome in the process;

wherein, provided at the end of the intermediate envelope-conveying device, in the position opposite the push-in arrangement, is an angled stop arrangement which can be switched at will to the active or inactive state and against which, in its active position, the envelope can be positioned, by way of two abutting edges, with alignment in the direction of its precise position by the intermediate envelope-conveying device;

wherein, once the envelope has been filled with an enclosure or a set of enclosures, the angled stop arrangement can then be switched to the inactive state by the push-in arrangement such that the filled envelope can be conveyed away from the envelope-filing station by an envelope-advancing device; and

wherein, once it has been switched to the active state and before being switched to the inactive state, the angled stop arrangement can be moved into an intermediate stop position in which at least one angled stop part, against which the envelope edge which is perpendicular to the push-in direction of the push-in arrangement is positioned, is moved back, by a comparatively small distance in relation to the push-in movement, in the push-in direction such that, under the driving frictional action of the intermediate envelope-conveying device, the filled envelope comes free of the push-in arrangement in the push-in direction.

2. An envelope-filling station according to Claim 1, wherein, the push-in arrangement contains push-in fingers which can be moved back and forth parallel to the conveying direction of the conveying path, receives the enclosures or sets of enclosures from the conveying path and has an operating stroke which is dimensioned such that, at the end of the operating stroke, the push-in fingers project some way into the filled envelope but come free of the filled envelope once the angled stop arrangement has been moved into the intermediate stop position.

3. An envelope-conveying station according to Claim 1, wherein the push-in arrangement contains push-in belts which are parallel to one another, are

provided with push-in fingers and circulate over the feeding device, it being the case that adjacent sets of push-in fingers on the respective bottom strand of the push-in belts receive enclosures or sets of enclosures from the conveying path and push them into the open envelopes and then, when the angled stop arrangement has moved into the intermediate stop position and the filled envelope has come free of the push-in arrangement, run over the front rollers of the push-in belts to the top strand of the latter.

4. Envelope-filling station according to Claim 1 wherein the angled stop part, against which that edge of the envelope which runs perpendicularly to the push-in direction of the push-in arrangement is positioned, is formed by a stopping straightedge which can be switched over between two pivoting positions and can be pivoted about a horizontal pivot axis running perpendicularly to the push-in direction of the push-in arrangement, one pivoting position of the stopping straightedge, in which the latter is located at a greater distance from the push-in arrangement, corresponding to the intermediate stop position of the angled stopping arrangement.

5. An envelope-filling station according to Claim 4, wherein the drive of the angled stopping arrangement contains a rotary drive, in particular a rotary magnet, acting on the pivot shaft of the stopping straightedge.

6. An envelope-filling station according to Claim 4, wherein the pivot axis of the stopping straightedge is located above or beneath the level of the horizontal plane determined by an intermediate envelope-conveying table.

7. An envelope-filling station according to Claim 1, wherein an envelope-flap-opening device is arranged upstream of the envelope-conveying device.

8. An envelope-filling station according to Claim 1, wherein the envelope-conveying device contains endless, circulating conveying belts, which are arranged parallel to one another, and, in a section which is located upstream of the abovementioned end section, as seen in the conveying direction,

abutment rollers which each interact with the top strand of the conveying belts and butt against the top side of the envelope.

9. An envelope-filling station according to Claim 1, wherein, in the abovementioned end section, the envelope-conveying device has, as abutment means which interact with the top strand of the conveying belts and are positioned against the top side of the envelope, a housing-mounted abutment plate or spherical rolling bodies which are guided in cages of a housing-mounted abutment plate.

10. An envelope-filling station according to Claim 1, wherein the envelope-conveying device contains endless, perforated conveying belts running over vacuum chambers, in which case it is possible to adjust the vacuum by vacuum chambers located in the abovementioned end section, and/or there is a reduction in the number of adjacent perforated conveying belts in the end section, such that, in the abovementioned end section, the conveyed envelope can be moved with the movement component transverse to the conveying direction of the envelope-conveying device.

11. An envelope-filling station according to Claim 1, wherein the intermediate envelope-conveying device contains endless, circulating conveying belts, which are arranged parallel to one another, and, in the region which is adjacent to the envelope-conveying device, abutment rollers which each interact with the top strand of said conveying belts and of which the axes of rotation are oriented orthogonally to the conveying direction of the intermediate envelope-conveying device.

12. An envelope-filling station according to Claim 11, wherein, in a region which is located closer to the end of the top strands of the conveying belts than to the start thereof, the intermediate envelope-conveying device has, as abutment means which interact with the top strand of the conveying belts and are positioned against the top side of the envelopes, spherical rolling bodies which are guided in cages of a support which can be raised and lowered.

13. An envelope-filling station according to Claim 1, wherein the intermediate envelope-conveying device contains endless, perforated conveying belts running over vacuum chambers, in which case it is possible to adjust the vacuum from the region of vacuum chambers located in the vicinity of the angled stop arrangement, and/or there is a reduction in the number of adjacent perforated conveying belts in this region, such that the conveyed envelope can be displaced in its plane relative to the intermediate envelope-conveying device, frictional forces being overcome in the process.

14. An envelope-filling station according to Claim 1, wherein the intermediate envelope-conveying device is controlled such that its conveying means are kept in operation even when the conveyed envelope has run up against the angled stop arrangement.

15. An envelope-filling station according to Claim 1, wherein the envelope-advancing device has a conveying direction which runs transversely to the push-in direction of the push-in arrangement.

16. An envelope-filling station according to Claim 1, wherein the angle of the conveying direction of the intermediate envelope-conveying device is in a range from 40° to 50°.